REMARKS

Upon entry of the present amendment, claims 2, 3, 6, 9-14 and 16-21 will be pending in the application. Claims 1, 4, 5, 7, 8 will have been canceled. Claims 2, 3, 9, 11, 13 and 14 will have been amended. Claims 16-21 are withdrawn from consideration. Entry of the present amendment, reconsideration of the rejection and allowance of the pending application in view of the following remarks are respectfully requested.

In the Final Office Action, the Examiner withdrew claims 16-21 from consideration as being directed to a non-elected invention. The Examiner restricted claims 16-21 from claims 1-4 and 6-15, asserting that the inventions of claims 16-21 are distinct from the inventions of claims 1-4 and 6-15, and that the inventions require separate searches. Applicants respectfully traverse the restriction for at least the following reasons.

Section 803 of the M.P.E.P. provides that if the search and examination of an entire application can be made without serious burden, the Examiner must examine it on the merits, even though it includes claims to independent or distinct inventions. Applicants respectfully submit that there would not be a serious burden on the Examiner to search and examine the entire application in these circumstances, as the search required for claims 16-21 is largely co-extensive with the search required for claims 1-4 and 6-15, and the claims which the Examiner declines to search (claims 16-21) are few in number. For at least these reasons, Applicants respectfully submit that the restriction is improper, and respectfully request that the Examiner consider claims 16-21 for examination.

Further, Applicants respectfully submit that the applied prior art fails to disclose or suggest a capacitance element that detects at least one of an excessive surge voltage and a rapid voltage fluctuation from a D.C. voltage smoothed by a full-rectification circuit, as recited in claims 16-21. For at least these reasons, Applicants respectfully submit that claims 16-21 are allowable.

In the Office Action, the Examiner rejected claims 1-4, 9 and 13-15 under 35 U.S.C. §102(b) as being anticipated by Okabayashi (U.S. Patent No. 5,794,096). Applicants respectfully traverse the rejection for at least the following reasons.

Upon entry of the present amendment, claims 1, 4 and 15 will have been canceled, thus rendering the rejection of these claims moot. However, cancellation of the claims should not be viewed as acquiescence by Applicants to the propriety of the rejection. Further, Applicants expressly reserve the right to include these claims in a continuation application.

The present invention is directed towards a power apparatus for electromagnetic induction heating. According to one aspect of the present invention, the power apparatus includes, inter alia, a heat generating member and an exciting coil provided in a vicinity of the heat generating member. The power apparatus also include a switching unit which supplies power to the exciting coil, a switching unit voltage detecting circuit which detects that a voltage to be applied to the switching unit exceeds a safe operating voltage limit, and a control circuit which controls a power to be supplied to the coil. When the switching unit voltage detecting circuit detects that the safe operating voltage limit of the switching unit is exceeded, the control circuit limits the supply of power to the exciting coil to carry out a control in such a manner that the voltage to be applied to the

switching unit maintains the safe operating voltage limit.

Okabayashi is directed to a drive circuit of an induction type heat fixing device. Okabayashi discloses that the drive circuit includes a switching circuit 44 which switches a current supply to a LC resonance circuit including a heating coil 90 between a supply state and an interrupted state. See Figure 22 and col. 8, lines 47-57.

Okabayashi also discloses that the drive circuit includes a maximum coil voltage detection circuit 255, which detects a maximum value of the coil voltage. See Figure 22 and col. 14, lines 54-57. Maximum coil voltage detecting circuit 255 outputs a high level signal when the detected value exceeds a predetermined reference voltage. See col. 14, lines 57-62. When the maximum value of the coil voltage is less than a predetermined reference value, the drive circuit turns OFF the switching circuit 44. See col. 14, lines 62-65. Thus, overheating of a heat-receiving member 30 is prevented by interrupting the supply of current to the induction heating coil 90 when a maximum voltage value is less than a reference value. See col. 14, line 65 – col. 15, line 4, and col. 15, line 59 – col. 16, line 6.

By contrast, the present invention teaches that the control circuit of the present invention ***limits*** (rather than cuts off) the supply of power to the exciting coil, such that the voltage applied to the switching unit maintains the safe operating voltage limit, when the safe operating voltage limit of the switching unit is ***exceeded***. See, for example, Figure 20 and pages 59-60 of the specification. Thus, Applicants invention significantly differs from Okabayashi's drive circuit, in that Okabayashi's drive circuit totally cuts off (rather than limits, as is performed by the instant invention) current to the induction heating coil 90, when a maximum voltage value is below (rather than exceeds) a

reference value.

Thus, Applicants respectfully submit that Okabayashi fails to disclose or suggest a control circuit which limits the supply of power to an exciting coil to carry out a control in such a manner that a voltage to be applied to a switching unit maintains a safe operating voltage limit, when a switching unit voltage detecting circuit detects that the safe operating voltage limit of the switching unit is exceeded, as recited in independent claims 2, 9, and 13.

For at least these reasons, Applicants respectfully submit that Okabayashi fails to anticipate the invention claimed in independent claims 2, 9 and 13, and respectfully request withdrawal of this ground of rejection.

Dependent claims 3 and 14 are also submitted to be in condition for allowance for at least the reasons set forth above with respect to independent claims 2 and 13.

In the Office Action, the Examiner rejected claims 5-8, 10 and 12 under 35 U.S.C. § 102(b) as being anticipated by Japanese Patent Publication No. JP 10301442 (hereinafter referred to as the "Canon" patent). Applicants respectfully traverse the rejection for at least the following reasons.

Applicants bring to the Examiner's attention the fact that claim 5 was previously canceled. Upon entry of the present amendment, claims 7 and 8 will have also been canceled. However, cancellation of these claims should not be viewed as acquiescence by Applicants to the propriety of the rejections. Further, Applicants expressly reserve the right to include these claims in a continuation application.

According to one aspect of the present invention, the power apparatus of the present invention includes, inter alia, a heat generating member and an exciting coil

provided in a vicinity of the heat generating member. The power apparatus also includes a power apparatus input voltage detecting circuit which detects that a commercial alternating voltage to be input to the power apparatus exceeds a maximum rated input voltage of the power apparatus, and a control circuit which controls a power to be supplied to the coil corresponding to a detection signal of the power apparatus input voltage detecting circuit.

The Examiner has relied upon an English language computer-generated translation of the Canon patent to reject the claims. The Examiner cited paragraphs 0082-0084 as allegedly disclosing a power apparatus input voltage detecting circuit which detects that a commercial alternating voltage to be input to a power apparatus exceeds a maximum rated input voltage of the power apparatus, and a control circuit which controls a power to be supplied to a coil corresponding to a detection signal of the power apparatus input voltage detecting circuit. This section of the Canon patent relates to a electrical-potential-difference detection means 108 and a fixing control unit 109. However, Applicants respectfully submit that the computer-generated translation of the Canon patent is of such poor quality that it is not possible to clearly discern from the translation how the detection means 108 and fixing control unit 109 function.

Applicants respectfully submit that the present translation does not anticipate a power apparatus input voltage detecting circuit which detects that a commercial alternating voltage to be input to a power apparatus exceeds a maximum rated input voltage of the power apparatus, and a control circuit which controls a power to be supplied to a coil corresponding to a detection signal of the power apparatus input voltage detecting circuit, as recited in independent claims 6, 10 and 12. Thus,

Applicants respectfully request that the Examiner withdraw this ground of rejection, or submit a better translation of the Canon patent if he chooses to maintain the rejection.

In the Office Action, the Examiner rejected claim 11 as being unpatentable under 35 U.S.C. § 103(a) over Okabayashi in view of Nanataki et al. (U.S. Patent No. 5,881,349). Applicants respectfully traverse the rejection for at least the following reasons.

As discussed above with respect to claims 2, 9 and 13, Okabayashi fails to disclose or suggest a control circuit which limits the supply of power to an exciting coil to carry out a control in such a manner that a voltage to be applied to a switching unit maintains a safe operating voltage limit, when a switching unit voltage detecting circuit detects that the safe operating voltage limit of the switching unit is exceeded. Applicants respectfully submit that Nantaki fails to disclose or suggest these features as well. For at least these reasons, Applicants respectfully submit that the 35 U.S.C. § 103(a) rejection of claim 11 is improper, and request withdrawal of the rejection.

Based on the above, it is respectfully submitted that this application is now in condition for allowance, and a Notice of Allowance is respectfully requested.

SUMMARY AND CONCLUSION

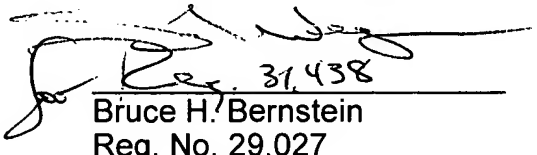
Applicants recognize that the present status of the application is after final. However, Applicants respectfully submit that entry and consideration of the present amendment is appropriate in the present circumstances, as the present amendment does not raise new issues that would require further consideration and/or search, and it places the application in condition for allowance.

Thus, entry and consideration of the present amendment, reconsideration of the outstanding Office Action, and allowance of the present application and all of the claims therein are respectfully requested and now believed to be appropriate. Applicants have made a sincere effort to place the present invention in condition for allowance and believe that they have now done so.

Any amendments to the claims which have been made in this amendment, and which have not been specifically noted to overcome a rejection based upon the prior art, should be considered to have been made for a purpose unrelated to patentability, and no estoppel should be deemed to attach thereto.

Should the Examiner have any questions or comments regarding this response, or the present application, the Examiner is invited to contact the undersigned at the below-listed telephone number.

Respectfully submitted,
Yasuhiro NONAKA et al.



Bruce H. Bernstein
Reg. No. 29,027

Steven Wegman
Reg. No. 31,438

P24875.A05

September 22, 2005
GREENBLUM & BERNSTEIN, P.L.C.
1950 Roland Clarke Place
Reston, VA 20191
(703) 716-1191